ELSEVIER

General Subjects

Vol. 1289, 1996

BBA Biochimica et Biophysica Acta

Cumulative Contents

Information for Contributors vii

Short sequence-paper

Microinjection of fluorescence dye in a plant cell and its intercellular translocation using a multi-channel microelectrode system
M. Saito, A. Ohi and H. Matsuoka (Japan) 1

Rapid reports

A novel fluorescent derivative of glucose applicable to the assessment of glucose uptake activity of *Escherichia coli*
K. Yoshioka, H. Takahashi, T. Homma, M. Saito, K.-B. Oh, Y. Nemoto and H. Matsuoka (Japan) 5

Cloning and sequencing of trehalose biosynthesis genes from *Arthrobacter* sp. Q36
K. Maruta, K. Hattori, T. Nakada, M. Kubota, T. Sugimoto and M. Kurimoto (Japan) 10

Regular papers

NAD-glutamate dehydrogenase from *Halobacterium halobium*: inhibition and activation by TCA intermediates and amino acids
M.J. Bonete, F. Perez-Pomares, J. Ferrer and M.L. Camacho (Spain) 14

Existence of phosphorylated and dephosphorylated forms of cytosolic thymidine kinase (TK1)
Q. He, S. Skog, C. Wu, A. Johansson and B. Tribukait (Sweden) 25

4-chloro-*m*-cresol, a potent and specific activator of the skeletal muscle ryanodine receptor
A. Herrmann-Frank, M. Richter, S. Sarközi, U. Mohr and F. Lehmann-Horn (Germany) 31

Characterization of prenyl protein transferase enzymes in a human keratinocyte cell line
E.E. MacNulty and N.S. Ryder (Austria) 41

Studies on metal induced conformation changes in a peripheral blood lymphocyte lectin
R. Kayestha, Sumati and K. Hajela (India) 51

Purification and characterization of *N*-acetylmuramyl-L-Alanine amidase from human plasma using monoclonal antibodies
M.A. Hoijer, M.-J. Melief, W. Keck and M.P. Hazenberg (the Netherlands, Switzerland) 57

Differential sensitivity of metallothionein-1 and -2 in liver of zinc-injected rat toward proteolysis
S. Saito and P.E. Hunziker (Japan, Switzerland) 65

Biochemical bases in differentiation of a mouse cell line GSM06 to gastric surface cells
T. Dohi, M. Nakasuji, K. Nakanishi, E. Yasugi, Y. Yuyama, N. Sugiyama, Y. Tabuchi, T. Horiuchi and M. Oshima (Japan) 71

Why *Saccharomyces cerevisiae* can oxidize but not decarboxylate external pyruvate
L. Kováč, C.A. Stella and E.H. Ramos (Slovakia, Argentina) 79

On the formation of the mixed pyrrole catalysed by porphobilinogen synthase from *Rhodobacter spheroides*
R.M. Lüönd and R. Neier (Switzerland) 83

Purification and characterization of a pod lectin from Great Northern bean, *Phaseolus vulgaris* L.
K. Kamemura, Y. Furuichi, H. Umekawa and T. Takahashi (Japan) 87

Changes of phage T7 nucleoprotein structure at low ionic strength. A Raman spectroscopic study
P. Gróf, D. Aslanian and G. Rontó (Hungary, France) 95

Quantification of O^6-methylguanine-DNA methyltransferase mRNA in human brain tumors
K. Mineura, K. Watanabe, T. Yanagisawa and M. Kowada (Japan) 105

Epitope of 24G7 anti-bilirubin monoclonal antibody
T. Yamaguchi, I. Shioji, A. Sugimoto, Y. Komoda and H. Nakajima (Japan) 110

The characterization of a UDP-*N*-acetylglucosamine: Galβ1-4Glc(NAc)β1-3 *N*-acetylglucosaminyltransferase in fluids from rat rete testis
Y. Tsuji, T. Urashima and T. Matsuzawa (Japan) 115

Purification and properties of a new β-naphthoflavone inducible cytochrome *P*-450, aryl hydrocarbon hydroxylase from rat kidney
N. Ohgiya, H. Yokota, Mitsuru, Takahashi, S. Komoro and A. Yuasa (Japan) 122

Altered expression of carnitine palmitoyltransferase II in liver, muscle, and heart of mouse strain with juvenile visceral steatosis
K. Hotta, M. Kuwajima, A. Ono, R. Uenaka, H. Nakajima, J.-i. Miyagawa, M. Namba, T. Hana-

fusa, M. Horiuchi, H. Nikaido, J.-i. Hayakawa, N. Kono, T. Saheki and Y. Matsuzawa (Japan) 131

Evidence for dual effect of bile acids on thymidine anabolism and catabolism by the regenerating rat liver
G.R. Villanueva, M.J. Monte, E.R. Barbero, M.A. Serrano and J.J.G. Marin (Spain) 136

Disordered expression of hepatic glycolytic and gluconeogenic enzymes in Otsuka Long-Evans Tokushima fatty rats with spontaneous long-term hyperglycemia
K. Hotta, M. Kuwajima, A. Ono, H. Nakajima, R. Shingu, J.-i. Miyagawa, M. Namba, T. Hanafusa, T. Noguchi, N. Kono and Y. Matsuzawa (Japan) 145

Visualization of yellowish-orange luminescence from cuprous metallothioneins in liver of Long-Evans Cinnamon rat
K. Nakayama, M. Okabe, K. Aoyagi, O. Yamanoshita, T. Okui, T. Ohyama and N. Kasai (Japan) 150

Acetylcholinesterase-induced respiratory burst in macrophages: evidence for the involvement of the macrophage mannose-fucose receptor
A. Klegeris, T.C. Budd and S.A. Greenfield (UK) 159

Publisher's Note *iv*

Regular papers

Error associated with experimental flux control coefficient determinations in the Calvin cycle
G. Pettersson (Sweden) 169

Why and when channelling can decrease pool size at constant net flux in a simple dynamic channel
P. Mendes, D.B. Kell and H.V. Westerhoff (UK, The Netherlands) 175

Mechanism of thermal uncoupling of Ca^{2+}-ATPase of sarcoplasmic reticulum as revealed by thapsigargin stabilization
G.A. Davidson and M.C. Berman (South Africa) 187

Generation of reactive oxygen species by the redox cycling of nitroprusside
D.N.R. Rao and A.I. Cederbaum (USA) 195

Carotenoid biosynthesis in wild type and mutant strains of *Mucor circinelloides*
P.D. Fraser, M.J. Ruiz-Hidalgo, M.A. Lopez-Matas, M.I. Alvarez, A.P. Eslava and P.M. Bramley (UK, Spain) 203

Effects of cholesterol on the lamellar and the inverted hexagonal phases of dielaidoylphosphatidylethanolamine
H. Takahashi, K. Sinoda and I. Hatta (Japan) 209

A simple solid-state NMR method for determining peptidoglycan crosslinking in *Bacillus subtilis*
N.S. Shenouda, Y. Pan, J. Schaefer and G.E. Wilson (USA) 217

Electron-transfer function of NAD^+-immobilized alginic acid
Y. Nakamura, S.-i. Suye, J.-i. Kira, H. Tera, I. Tabata and M. Senda (Japan) 221

Aspects of carbonic anhydrase and carbonate content during mineralization of the rat enamel
M. Kakei and H. Nakahara (Japan) 226

Plant and human neutrophil oxidative burst complexes contain immunologically related proteins
S.C. Dwyer, L. Legendre, P.S. Low and T.L. Leto (USA, France) 231

Role of cytochrome *P*-450 in the stimulation of microsomal production of reactive oxygen species by ferritin
S. Puntarulo and A.I. Cederbaum (Argentina, USA) 238

The expression of proopiomelanocortin (POMC) and of corticotropin releasing hormone receptor (CRH-R) genes in mouse skin
A. Slominski, G. Ermak, J. Hwang, J. Mazurkiewicz, D. Corliss and A. Eastman (USA) 247

Different mechanisms of formation of glutathione-protein mixed disulfides of diamide and *tert*-butyl hydroperoxide in rat blood
P. Di Simplicio, E. Lupis and R. Rossi (Italy) 252

Regulation of UDPG-pyrophosphorylase isoforms in *Saccharomyces cerevisiae* and their roles in trehalose metabolism
M.B. Dutra, J.T. Silva, D.C. Mattos and A.D. Panek (Brazil) 261

Metabolism and detoxification of nitrite by trout hepatocytes
C. Doblander and R. Lackner (Austria) 270

Effect of 1,25-dihydroxyvitamin D_3 on mouse thymus: role of extracellular calcium
M.I. Mohamed, M.J. Beckman, J. Meehan and H.F. DeLuca (USA) 275

Formation of β-glucuronides and of β-galacturonides of various retinoids catalyzed by induced and noninduced microsomal UDP-glucuronosyltransferases of rat liver
G. Genchi, W. Wang, A. Barua, W.R. Bidlack and J.A. Olson (USA) 284

Iron transport across Caco-2 cell monolayers. Effect of transferrin, lactoferrin and nitric oxide
L. Sánchez, M. Ismail, F.Y. Liew and J.H. Brock (UK) 291

Characterization of synthetic retinoids with selectivity for retinoic acid or retinoid X nuclear receptors
P.K. LeMotte, S. Keidel and C.M. Apfel (Switzerland) 298

Factor H co-purifies with thrombospondin isolated from platelet secretate

J.A. Carron, R.C. Bates, A.I. Smith, T. Tetoz, A. Arellano, D.L. Gordon and G.F. Burns (Australia) 305

The hydration of proteins in solutions by self-diffusion coefficients NMR study
H.M. Baranowska and K.J. Olszewski (Poland) 312

Substrate specificity and transglucosylation catalyzed by cycad β-glucosidase
F. Yagi and K. Tadera (Japan) 315

Characteristics of phosphatidic acid-containing lipoproteins which selectively inhibit bitter taste: high affinity to frog tongue surface and hydrophobic model membranes
Y. Katsuragi, Y. Sugiura, K. Otsuji and K. Kurihara (Japan) 322

Conversion of metmyoglobin to NO myoglobin in the presence of nitrite and reductants
M. Nakamura and S. Nakamura (Japan) 329

Preferential transfer of truncated oligosaccharides to the first sequon of yeast exoglucanase in *Saccharomyces cerevisiae alg3* cells
R. Cueva, M.D. Muñoz, E. Andaluz, R.D. Basco and G. Larriba (Spain) 336

Regulation of the supply of cytosolic oxaloacetate for mitochondrial metabolism via phospho-*enol*pyruvate carboxylase in barley leaf protoplasts. I. The effect of covalent modification on PEPC activity, pH response, and kinetic properties
S. Krömer, P. Gardeström and G. Samuelsson (Sweden) 343

Regulation of the supply of oxaloacetate for mitochondrial metabolism via phospho*enol*pyruvate carboxylase in barley leaf protoplasts. II. Effects of metabolites on PEPC activity at different activation states of the protein
S. Krömer, P. Gardeström and G. Samuelsson (Sweden) 351

Continuous monitoring of cellular nitric oxide generation by spin trapping with an iron-dithiocarbamate complex
Y. Kotake, T. Tanigawa, M. Tanigawa, I. Ueno, D.R. Allen and C.-S. Lai (USA) 362

Comparative ^{1}H-NMR studies on the physical state of water in soft contact lens and mouse lens
K. Kuwata, S. Era, M. Sogami, H. Amano, S. Nagaoka, K. Kato, K. Takahashi, Y. Kitazawa and H. Watari (Japan) 369

Kinetic studies of the oscillatory dynamics in the peroxidase-oxidase reaction catalyzed by four different peroxidases
K.R. Valeur and L.F. Olsen (Denmark) 377

Effects of free fatty acids on the binding of bovine and human serum albumin with steroid hormones
S. Watanabe and T. Sato (Japan) 385

Oscillations in the peroxidase-oxidase reaction: a comparison of different peroxidases
U. Kummer, K.R. Valeur, G. Baier, K. Wegmann and L.F. Olsen (Germany, Denmark) 397

Complexation of spermine and spermidine by *myo*-inositol 1,4,5-tris(phosphate) and related compounds: biological significance
K. Mernissi-Arifi, I. Imbs, G. Schlewer and B. Spiess (France) 404

Cumulative Contents, Vol. 1289 411

Author Index 414